original bandwidth of the respective slow-speed data stream DATA1 . . . DATAN. The restored slow-speed data streams DATA1 . . . DATAN are combined in a combiner **68** into a high-speed data stream DATAOUT.

A data transmission according to the present invention through the parallel CDMA traffic channels can thus be according to similar principles as described above for TDMA traffic channels. The only difference is that spreading codes (e.g., Walsh functions) will be used instead of time slots as traffic channels.

In a CDMA system, two or more traffic channels may be allocated for the high-speed data transmission only in one direction (downlink), from the base-station to the mobile station. In the opposite direction (uplink) there may be only one channel for data transmission. The mobile station measures the the characteristics of the received data signal, such as signal level and/or quality, at the mobile station in each of said allocated traffic channels, and reports the measurement results to the network side as described above. The network side employs the measurement results for handover decisions and power control of the base station and the mobile station. The base station also measures the characteristics, such as signal level and/or quality, of the data signal received from the mobile station for the transmission power control of the mobile station. The power control commands are preferably transmitted to the mobile station through the dedicated control channels of all downlink traffic channels as described above. It is also possible, however, that the power control commands are transmitted to the mobile station through only one of the dedicated control channels or through a single common control channel, as described above.

Typically, there are various coding and signal processing operations, such as channel coding (convolutional coding), symbol repetition, interleaving, etc., involved with the data transmission. These additional operations are not essential in the point of view of present invention. In the embodiment of FIG. **11**, it is assumed that these coding and interleaving operations, if any, are done to the high-speed data streams DATAIN and DATAOUT prior to the data splitting **61** and subsequent to data combining **68**.

In another embodiment illustrated in FIGS. **12**A and **12**B, the channel coding, interleaving and other additional operations are done separately on each slowspeed data stream DATA1 . . . DATAN. To this end, encoding and interleaving blocks $\mathbf{60}_1 \ldots \mathbf{60}_N$ are provided between the data splitter **61** and the Walsh encoders $\mathbf{62}_1 \ldots \mathbf{62}_N$ in the transmitter of FIG. **12**A. Similarly, decoding and deinterleaving blocks $\mathbf{69}_1 \ldots \mathbf{69}_N$ are provided between the Walsh decoders $\mathbf{67}_1 \ldots \mathbf{67}_N$ and the data combiner **68** in the receiver of FIG. **12**B.

The RF parts **63** and **66** normally comprise transmitting and receiving filters. Often also a QPSK (Quadrature Phase Shift Keying) modulator is used. FIG. **13** show an example of how four channels can be divided between quadrature (Q) and in-phase (I) branches in a QPSK modulator. High-speed data signal DATAIN is split into slow-speed data streams DATA1 . . . DATA4 and fed to multipliers $\mathbf{62}_1 \ldots \mathbf{62}_4$ (Walsh encoders), respectively. In multipliers **62**, and **623**, data streams DATA1 and DATA3 are multiplied by Walsh function **1**. Similarly, in multipliers $\mathbf{62}_2$ and $\mathbf{62}_4$, data streams DATA2 and DATA4 are multiplied by Walsh function **2**. The outputs of multipliers $\mathbf{62}_1$ and $\mathbf{62}_2$ are summed in summing block **71**, and fed to the I branch of the QPSK modulator. The outputs of multipliers $\mathbf{62}_3$ and $\mathbf{62}_4$ are summed in summing block **72**, and fed to the Q branch of the QPSK modulator. The signals of the I and Q branches are multiplied by different spreading codes PN_I and PN_Q in multipliers **73** and **74**, respectively. The actual spreading is done by these "outer" spreading codes. The resulting I and Q signals multiplied by the in-phase (from local oscillator **77**) and quadrature (via **90** degree phase shifter **78** from the oscillator **77**) oscillator signals, and fed through other RF parts **63** to antenna **64**.

The Figures and the description referring to them are only intended to illustrate the present invention. The method and arrangement of the invention may vary in details within the scope of the attached claims.

We claim:

1. A method for power control in a mobile telecommunications system, said method comprising:

allocating to a mobile station at least two parallel traffic channels for high-speed data transmission over a radio path between the mobile station and a base station of a fixed radio network;

transmitting a data signal over said allocated traffic channels;

measuring characteristics of the received data signal at the mobile station in each of said allocated traffic channels; and

controlling the transmission power of the base station on the basis of at least one of (a) a combination of measurement results of two or more of said allocated traffic channels reported by the mobile station, and (b) a measurement result of the poorest one of said allocated traffic channels reported by the mobile station.

2. A method as claimed in claim **1**, further comprising:

assigning to the mobile station a parallel control channel common to all of said allocated traffic channels;

transmitting a combination of measurement results of all the traffic channels from the mobile station to the fixed radio network;

measuring characteristics of a received signal at the base station; and

controlling the transmission power of the mobile station through said parallel control channel.

3. A method as claimed in claim **1**, further comprising:

assigning to the mobile station a dedicated parallel control channel for each of said allocated traffic channels;

transmitting the measurement results of each of said allocated traffic channels from the mobile station to the fixed radio network;

measuring characteristics of a received signal at the base station; and

controlling the transmission power of the mobile station through all of said dedicated control channels.

4. A method as claimed in claim **1**, comprising:

assigning to the mobile station a dedicated parallel control channel for each of said allocated traffic channels;

transmitting the measurement results of each of said allocated traffic channels from the mobile station to the fixed radio network;

measuring characteristics of a received signal at the base station; and

controlling the transmission power of the mobile station through one of said control channels.

5. A method according to claim **1**, wherein said mobile telecommunication system is a code division multiple access (CDMA) system, and said traffic channels are CDMA traffic channels.

6. A method according to claim **5**, wherein said CMDA traffic channels are distinguished from each other by different spreading codes.